



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Set Public Hearing for August 19, 1998, to Consider Receiving Comments on the City of Lodi's Public Health Goals Report

MEETING DATE: July 15, 1998

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council set a Public Hearing for August 19, 1998 to receive comments on and accept the required Public Health Goals Report.

BACKGROUND INFORMATION: Attached is a report prepared by staff comparing Lodi's drinking water quality with California EPA's public health goals (PHGs) and with the US EPA's maximum contaminant level goals (MCLGs). PHGs and MCLGs are not enforceable standards and no action to meet them is mandated.

SB 1307 (Calderone-Sher; effective January 1, 1997) added new provisions to the California Health and Safety Code which mandate that a report be prepared on or before July 1, 1998. The attached report is intended to provide information to the public in addition to the Annual Water Quality Report mailed to each customer in April 1998. On July 1, 1998, a public notice appeared in the *Lodi News Sentinel* to inform any interested party of the Public Health Goals Report and its availability.

The new law also requires that a public hearing be held (which can be part of a regularly scheduled public meeting) for the purpose of accepting and responding to public comment on the report. A notice of public hearing will be published in the *Lodi News Sentinel*.

Our water system complies with all of the health-based drinking water standards and maximum contaminant levels (MCLs) as required by the California Department of Health Services and the US EPA. No additional actions are required or recommended.

FUNDING: Not applicable.

Richard C. Prima, Jr.
Public Works Director

Prepared by Frank Beeler, Assistant Water/Wastewater Superintendent

RCP/FB/dsg

Attachment

cc: Water/Wastewater Superintendent
Assistant Wastewater Treatment Superintendent

APPROVED: _____


H. Dixon Flynn -- City Manager

CITY OF LODI
REPORT ON WATER QUALITY
RELATIVE TO PUBLIC HEALTH GOALS
July 1, 1998

Background

Recently enacted provisions of the California Health and Safety Code specify that larger water utilities (more than 10,000 service connections) are required to prepare a special report on or before July 1, 1998, if their water quality measurements have exceeded any Public Health Goals (PHGs). These are **non-enforceable** goals established by the Cal-EPA's Office of Environmental Health Hazard Assessment. The first 27 of these PHGs were adopted by Cal. EPA on December 31, 1997, but the PHG for uranium was later withdrawn. The law also requires that where Cal. EPA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by the United States Environmental Protection Agency (U.S.EPA). Only constituents which have a California primary drinking water standard and for which either a PHG or MCLG has been set are to be addressed per regulations.

The new law specified what information is to be provided in the report. If a constituent was detected in the water supply in 1997 at a level exceeding an applicable PHG or MCLG, this report provides the information required by the law. Included are:

- the numerical public health risk associated with the Maximum Contaminant Level (MCL) and the PHG or MCLG;
- the category or type of risk to health that could be associated with each constituent;
- the best treatment technology available that could be used to reduce the constituent level; and
- an estimate of the cost to install that treatment if it is appropriate and feasible.

What Are PHGs?

PHGs are set by the California Office of Environmental Health Hazard Assessment which is part of Cal-EPA and are based solely on public health risk considerations. None of the practical risk-management factors that are considered by the U.S.EPA or the California Department of Health Services in setting drinking water standards (Maximum Contaminant Levels or MCLs) are considered in setting the PHGs. These factors include analytical detection capability, treatment technology available, benefits and costs. The PHGs are **not enforceable and are not required to be met** by any public water system. MCLGs are the federal equivalent to PHGs.

Water Quality Data Considered:

All of the water quality data collected by our water system in 1997 for purposes of determining compliance with drinking water standards was considered. This data was all summarized in the attached 1997 Annual Water Quality Report which was mailed to all of our customers in April 1998.

Guidelines Followed:

The Association of California Water Agencies prepared guidelines for water utilities to use in preparing these newly required reports, and these guidelines were used in the preparation of our report. No guidance was available from state regulatory agencies.

Best Available Treatment Technology and Cost Estimates:

Both the U.S.EPA and the California Department of Health Services adopt what are known as Best Available Technologies or BATs which are the best known methods of reducing contaminant levels to the MCL. Costs can be estimated for such technologies. However, since many PHGs and all MCLGs are set much lower than the MCL, it is not always possible nor feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, many of which are set at zero. Estimating the costs to reduce a constituent to zero is difficult, if not impossible, because it is not possible to verify by analytical means that the level has been lowered to zero. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

Constituents Detected That Exceed a PHG or a MCLG:

The following is a discussion of constituents that were detected in one or more of our drinking water sources at levels above the PHG, or if no PHG, above the MCLG.

Trichloroethylene (TCE): There is no PHG for TCE, but the MCLG set by the U.S. EPA is zero. The MCL or drinking water standard for TCE is 0.005 milligrams per liter (mg/l or parts per million). We detected TCE at levels not exceeding the MCL in three (3) of Lodi's 21 wells used in 1997. The averages for these wells in 1997 were:

Well No. 2	-	0.0048 mg/l;
Well No. 12	-	0.0007 mg/l, and
Well No. 24	-	0.0011 mg/l.

The category of health risk associated with TCE, and the reason that a drinking water standard was adopted for it, is the people who drink water containing TCE above the MCL throughout their lifetime could theoretically experience an increased risk of getting cancer. The California Department of Health Services says that "Drinking water which meets this standard (the MCL) is associated with little to none of this risk and should be considered safe with respect to TCE." (*CDHS Blue Book of drinking water law and regulations, Section 64468.2, Title 22, CCR.*) The numerical health risk for an MCLG of zero is zero. The Best Available Technology for TCE to lower the level below the MCL is either Granular Activated

Carbon or Packed Tower Aeration. Since the TCE level in these three wells is already below the MCL, a Granular Activated Carbon Treatment System with a long empty bed contact time would likely be required to attempt to lower the TCE level to zero. The estimated cost to install such a treatment system on Wells No. 2, 12 and 24 that would reliably reduce the TCE level to zero would be roughly \$1.5 million and require annual Operation and Maintenance at a cost of roughly \$200,000 per year. This would result in an assumed increased cost for each customer of over \$16 per year*.

Dibromochloropropane (DBCP): There is no PHG for DBCP, but the MCLG set by the U.S. EPA is zero. The MCL for DBCP is 0.0002 mg/l. We detected DBCP at levels not exceeding the MCL in 11 of Lodi's 21 wells used in 1997. The annual averages for these wells in 1997 were:

Well No. 1R	-	0.00012 mg/l;
Well No. 6R	-	0.00005 mg/l;
Well No. 8	-	0.00017 mg/l;
Well No. 9	-	0.00003 mg/l;
Well No. 13	-	0.00011 mg/l;
Well No. 14	-	0.00016 mg/l;
Well No. 16	-	0.00009 mg/l;
Well No. 17	-	0.00007 mg/l;
Well No. 21	-	0.00002 mg/l;
Well No. 22	-	0.00010 mg/l; and
Well No. 23	-	0.00010 mg/l.

The category of health risk associated with DBCP, and the reason that a drinking water standard was adopted for it, is the people who drink water containing DBCP above the MCL throughout their lifetime could theoretically experience an increased risk of getting cancer. The California Department of Health Services says that "Drinking water which meets this standard (the MCL) is associated with little to none of this risk and should be considered safe with respect to DBCP." (*CDHS Blue Book of drinking water law and regulations, Section 64468.3, Title 22, CCR.*) The numerical health risk for an MCLG of zero is zero. The Best Available Technology for DBCP to lower the level below the MCL is either Granular Activated Carbon or Packed Tower Aeration. To attempt to maintain the DBCP levels at zero, Granular Activated Carbon Treatment Systems with longer empty bed contact times and more frequent carbon change-outs would likely be required. The estimated cost to install such a treatment system on 9 Wells, and enhance capacities on 4 Wells with existing treatment systems (including Well No. 4R that was not listed earlier), that would reliably reduce the DBCP level to zero would be roughly \$4.8 million. The increased annual Operation and Maintenance costs would be roughly \$580,000 per year. This would result in an assumed increased cost for each customer of over \$50 per year*. (Note: this increased cost may not be reimbursable under the terms of Lodi's settlement agreement with DBCP manufacturers.)

* All annual customer costs were based on an assumed annualized cost of capital expenditures equal to 10% of capital costs plus annual operation and maintenance costs divided by 21,000 customers.

Coliform Bacteria: In 1997, we collected over 1,000 samples from our distribution system for coliform analysis. Of these samples, 1.4% were positive for coliform bacteria. In 1997 a maximum of 4.7% of these samples were positive for one month.

The MCL for coliform is 5% positive samples of all samples per month and the MCLG is zero. The reason for the coliform drinking water standard is to minimize the possibility of the water containing pathogens which are organisms that cause waterborne disease. Because coliform is only an indicator of the potential presence of pathogens, it is not possible to state a specific numerical health risk. While U.S. EPA normally sets MCLGs "at a level where no known or anticipated adverse effects on persons would occur", they indicate that they cannot do so with coliforms.

Coliform bacteria are organisms that are found just about everywhere in nature and are not generally considered harmful. They are used as an indicator because of the ease in monitoring and analysis. If a positive sample is found, it indicates a potential problem that needs to be investigated and follow up sampling done. It is not at all unusual for a system to have an occasional positive sample. It is difficult, if not impossible, to assure that a system will never get a positive sample. A further test that is performed on all total coliform positive results is for Fecal Coliform or E. Coli. There were **no positive** Fecal Coliform or E. Coli results in 1997.

To reduce the number of positive results for coliform bacteria, the City of Lodi occasionally chlorinates the water system. The sources of water (Wells) and all new or repaired water mains follow disinfection procedures and pass bacteriological testing before being allowed "on-line". We are working on updating monitoring and operational procedures to further prevent occurrences of Coliform bacteria levels exceeding the MCL.

Full time chlorination will not guarantee that a system will never get a positive sample. If the City were to go to full time chlorination of the drinking water system, the estimated cost to install chlorine generation systems on 24 Wells would be roughly \$800,000 and annual Operation and Maintenance cost would be roughly \$50,000 per year. This would result in an assumed increased cost for each customer of over \$6 per year*.

Lead: The category of health risk for lead is damage to the kidneys or nervous system of humans. Numerical health risk data on lead has not yet been provided by CAL. EPA, the State agency responsible for providing that information.

Our water system is in full compliance with the Federal and State Lead and Copper Rule. Based on past sampling performed according to Federal and State regulatory requirements, we meet the Action Levels for Lead. We are also deemed by the Federal and State Lead and

* All annual customer costs were based on an assumed annualized cost of capital expenditures equal to 10% of capital costs plus annual operation and maintenance costs divided by 21,000 customers.

Copper Rule to have naturally occurring "optimized corrosion control" for our system. This determination was established by testing for Lead and Copper at customers taps in Lodi and an evaluation of the naturally occurring minerals and characteristics found in Lodi's water.

Analyses for Lead are also performed at the individual wells. The PHG for Lead is 0.002 mg/l. We detected Lead at a level not exceeding the MCL but over the PHG in one (1) of Lodi's 21 wells used in 1997 at a level of 0.009 mg/l at Well No. 5. A follow up sample at Well No. 5 in 1998 showed **no detectable levels of Lead**.

In general, optimizing corrosion control is considered the best available technology to deal with corrosion issues and with any lead or copper findings. Therefore, having "optimized corrosion control" and the fact that Well No. 5 no longer shows any level of Lead, there is no further action that can be practically taken to further reduce lead levels in the water system.

Recommendations For Further Action:

The drinking water quality of the City of Lodi Public Water System meets all State of California, Department of Health Services and U.S. EPA drinking water standards set to protect public health. To further reduce the levels of the constituent's identified in this report that are already below the health-based Maximum Contaminant Levels established to provide "safe drinking water", additional costly treatment processes would be required. The effectiveness of the treatment processes to provide any significant reductions in constituent levels at these already low values is uncertain. The theoretical health protection benefits of these further hypothetical reductions are not at all clear and may not be quantifiable. Therefore, staff is not recommending further action at this time. However, the point of this process is to provide you with information on the quality of your drinking water and rough costs to make certain improvements.

This report was completed by City of Lodi Public Works Department staff. Any questions relating to this report should be directed to: City of Lodi, Assistant Water/Wastewater Superintendent Frank Beeler, 1331 South Ham Lane, Lodi, CA 95242 or call (209) 333-6740.



PUBLIC WORKS DEPARTMENT

Annual Water Quality Report for 1997

To keep our water customers informed about drinking water in Lodi, the City of Lodi distributes this annual report. The Water Quality Report on Pages 2 and 3 summarizes testing performed on Lodi's water supply by State certified laboratories. To better understand the report please note the description of terms and abbreviations at the top of page 2.

The City of Lodi supplies high-quality groundwater through approximately 24 City wells which are all interconnected through 200 miles of water mains. These wells operate automatically on demand, so when water use increases, more wells come on line. To also help meet peak water demands, the City had a one million gallon storage tank and pump station constructed east of Highway 99 on Thurman Street. For peak use purposes, this tank will take the place of three wells and was put in operation last summer.

Prompted by the power outage on August 10, 1996, the City stepped up the purchases of new generators for City wells. While these will help maintain water pressure during power outages, please refrain from using water during power outages and save the capacity for emergency uses i.e., fire fighting.

WATER CONSERVATION

In 1997, 5.321 billion gallons of water were pumped to satisfy Lodi's water demands. This represents 10.7% less use per person than 1987, however, it is an increase of 7.7% over the 1996 per person usage.

Your diligent conservation practices, as in the past, are needed in 1998. Not only do we preserve a valuable natural resource, dollar savings from conservation far exceeds the program's cost. Your water conservation efforts have resulted in annual savings in operation and maintenance and averted millions of dollars in capital costs, helping water rates stay as low as possible. The millions of dollars in capital cost savings can easily be lost if water conservation is not continued. *Please read the water conservation message on Page 4.*

PLANNING FOR THE FUTURE

On November 13, 1997 a "Water Supply Workshop" was held. Lodi Citizens and other interested parties were invited to participate. The objective of the workshop was to review Lodi's water supply issues, note concerns about the water supply, and discuss all possible water supply sources. There were many good discussions and good ideas, all of which are being summarized for review. Upon review of the summary, the City Council will identify components meriting further action or study.

Lodi is also actively participating in the East San Joaquin Parties Water Authority (ESJPWA) on ways

to bring in new water supplies into the area and to restore the groundwater table.

DBCP UPDATE

In some areas the groundwater below Lodi contains small amounts of Dibromochloropropane (DBCP). However, the people of Lodi have not been served water exceeding the DBCP standards.

To date the City has installed Granular Activated Carbon (GAC) treatment on four wells to remove DBCP. The City plans to install two more treatment systems in 1998 on shut down wells in order to reactivate them.

In 1996 the City settled a lawsuit against manufacturers of DBCP, who have already paid the City for a large portion of Lodi's costs related to DBCP (including 50% of the costs of the new 1 MG water storage tank/pumping station on Thurman Street). The makers of DBCP will continue to pay a large portion of the City's DBCP related costs for the 40-year life of the settlement.

SOILS AND GROUNDWATER PCE/TCE CLEAN-UP

The City is pursuing a resolution to another contamination problem in the north and central Lodi area. While NO operating wells are out of compliance with any drinking water standards, detectable amounts of Tetrachloroethylene (PCE) and Trichloroethylene (TCE) are found in soils and shallow groundwater. The City has retained legal and engineering assistance to aid in development of funding towards clean-up and containment of these dry cleaning and industrial solvents before contamination spreads to the City's operating drinking water wells.

BACTERIAL WATER QUALITY

Lodi takes over 18 samples per week from throughout Lodi's water distribution system for bacterial water quality. Strict testing for bacteria shows if any harmful types are possibly present. In 1997 the City water met all bacterial standards. (See the bacterial water quality summary on page 3.)

Normally Lodi's water does **not** contain chlorine. However, in January, 1997 and again in May, 1997 the water was chlorinated for one week and three weeks respectively as proactive steps to help keep the water system in compliance with strict bacterial standards. Occasionally the City may chlorinate your water, but we'll make every effort to inform you in local papers before your water is chlorinated.

In summary, you should consider your water safe to drink. Water delivered to your tap meets or is better than all federal and state water quality standards.

If you have any questions about this report or the quality of Lodi's water, please call the City's Water/Wastewater Office at (209) 333-6740.



CITY OF LODI - PUBLIC WORKS DEPARTMENT ANNUAL WATER QUALITY REPORT FOR 1997

(PART 1 OF 2)

Definition of terms and abbreviations

NA = Not Applicable NS = No Standard (MCL) Set ND = Not Detected at Minimum Detection Levels
MCL = Maximum Contaminant Level (State Standard) < Means "less than" the amount shown.
"Minimum Detection Level" means the minimum amount a laboratory can accurately detect.
Unless otherwise noted the results are given in milligrams per liter (mg/L or parts per million)
Results are only from wells which supplied drinking water in 1997.

Organic Chemicals with at least one confirmed detection in an operational City Well					
Regulated Organic Chemicals, mg/L 1996 data.	Maximum Contaminant Level (MCL)	Minimum Detection Level - mg/L	Average All Wells mg/L	Range High - Low mg/L	Comments:
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	<0.0005	0.0020-ND	Found only in Well # 2 at trace levels below the MCL
Trichloroethylene (TCE)	0.005	0.0005	0.0003	0.0059-ND	Found in Wells # 2, 12, 18, & 24 in trace levels below the MCL.
Dibromochloropropane (DBCP)	0.0002	0.00001	0.00005	0.0003-ND	Wells officially over the MCL (No.'s 18, 19 & 20) were <u>not</u> used in 1997.

The following Organic Chemicals with Federal and State standards, were tested for, but were not detected in Lodi's wells: (For details of MCL's and "Minimum Detection Levels" call the number on Page 3.)

Methyl tert-Butyl Ether (MTBE)	Thiobencarb (Bulero)	Trichlorotrifluoroethane (Freon 113)
Total THM's	Endrin	Diethylhexylphthalate (DEPH)
Benzene	Lindane (gamma-BHC)	Heptachlor
Carbon tetrachloride	Methoxychlor	Heptachlor epoxide
Ethylbenzene	Toxaphene	Alachlor (ALANEX)
1,4-Dichlorobenzene (p-DCB)	Chlordane	Benzo (a) pyrene
1,2-Dichloroethane (1,2-DCA)	2,4-D	Carbofuran (FURADAN)
Total 1,3-Dichloropropene	Bentazon (Basegran)	Dalapon
Monchlorobenzene	2,4,5-TP (Silvex)	Dinoseb (DNBP)
1,1,2,2-Tetrachloroethane	1,2-Dichlorobenzene (o-DCB)	Di (2-ethylhexyl) adipate
Tetrachloroethylene (PCE)	1,1-Dichloroethane (1,1-DCA)	Hexachlorobenzene
1,1,1-Trichloroethane (1,1,1-TCA)	cis-1,2-Dichloroethylene	Hexachlorocyclopentadiene
1,1,2-Trichloroethane (1,1,2-TCA)	trans-1,2-Dichloroethylene	Oxamyl (Vydate)
Vinyl Chloride (VC)	1,2-Dichloropropane	Pentachlorophenol (PCP)
Total Xylenes (m, p & O)	Methylene chloride	Picloram
Ethylene Dibromide (EDB)	Styrene	Total PCB's
Atrazine (AAtrex)	Toluene	Endothall
Molinate (Odram)	1,2,4-Trichlorobenzene	Diquat
Simazine (Princep)	Trichlorofluoromethane (Freon 11)	

The following Organic Chemicals have no Federal or State standards, but were also tested for and were not detected in Lodi's wells: (For details of "Minimum Detection Levels" call the number on Page 3.)

m, p-Xylene	Dibromomethane	p-Isopropyltoluene
O-Xylene	1,3-Dichlorobenzene (m-DCB)	Naphthalene
Bromobenzene	Dichlorodifluoromethane	n-Propylbenzene
Bromochloromethane	1,3-Dichloropropane	1,1,1,2-Tetrachloroethane
Bromomethane (Methyl Bromide)	2,2-Dichloropropane	1,2,3-Trichlorobenzene
n-Butylbenzene	1,1-Dichloropropene	1,2,3-Trichloropropane
sec-Butylbenzene	Hexachlorobutadiene	1,2,4-Trimethylbenzene
tert-Butylbenzene	Bromodichloromethane	1,3,5-Trimethylbenzene
Chloroethane	Bromoform	Bromacil (Hyvar)
Chloromethane (Methyl Chloride)	Chloroform	Diazinon
2-Chlorotoluene	Dibromochloromethane	Prometryn (Caparol)
4-Chlorotoluene	Isopropylbenzene(Cumene)	



CITY OF LODI - PUBLIC WORKS DEPARTMENT ANNUAL WATER QUALITY REPORT FOR 1997

(PART 2 OF 2)

Definition of terms and abbreviations

NA = Not Applicable

NS = No Standard (MCL) Set

ND = Not Detected at Minimum Detection Levels

MCL = Maximum Contaminant Level (State Standard)

< Means "less than" the amount shown.

"Minimum Detection Level" means the minimum amount a laboratory can accurately detect.

Unless otherwise noted the results are given in milligrams per liter (mg/L or parts per million)

Results are only from wells which supplied drinking water in 1997.

Regulated Inorganic Chemicals, mg/L 1995-1997 Data	Maximum Contaminant Level (MCL)	Minimum Detection Level	Average All Wells mg/L	Range High - Low mg/L
Aluminum	0.2	0.05	<0.05	0.100-ND
Antimony	0.006	0.0060	ND	NA
Arsenic	0.05	0.002	0.0046	0.0091-ND
Barium	1.	0.1	0.060	0.17-ND
Beryllium	0.004	0.0010	ND	NA
Cadmium	0.005	0.001	<0.001	0.00015-ND
Chromium	0.05	0.01	<0.01	0.017-ND
Cyanide	0.2	0.10	ND	NA
Fluoride	1.2	0.1	0.08	0.2-ND
Lead	0.050	0.005	<0.005	0.0088-ND
Mercury	0.002	0.0002	ND	NA
Nickel	0.10	0.010	ND	NA
Nitrate as N	10	0.4	1.7	4.7-ND
Selenium	0.05	0.005	ND	NA
Silver	0.100	0.01	ND	NA
Thallium	0.002	0.0010	ND	NA

Additional Constituents Measured. 1995-1997 Data	Maximum Contaminant Level (MCL)	Minimum Detection Level	Average of All Wells	Range High - Low
pH, Units	NS	NA	7.6	7.9-7.1
Calcium, mg/L	NS	NA	27	71-6.2
Hardness as CaCO ₃ , mg/L a)	NS	NA	120	300-32
Magnesium, mg/L	NS	NA	13	30-3.9
Nitrite as N, mg/L	1	0.4	ND	NA
Potassium, mg/L	NS	NA	5.6	10-2.0
Sodium, mg/L	NS	NA	21	49-6

a) To calculate grains per gallon, divide by 17.1

Bacterial Water Quality, Total Coliform Bacteria 1997 Data (%)	Maximum Contaminant Level (MCL)	Minimum Detection Level	Total % Positive	Monthly High-Low % Positive
Total Coliform, Positive	5% /month	NA	1.4%	4.7%-0%
Fecal Coliform	>1 /month	NA	0.00%	ND

Secondary Standards Aesthetic* Purposes 1995-1997 Data	Secondary Standard	Minimum Detection Level	Average of All Wells	Range High - Low
Chloride, mg/L	500	1	14	57-2.6
Color-Units	15	3	<3	5 - ND
Copper, mg/L	1.0	0.05	<0.05	0.16-ND
Iron, mg/L	0.3	0.1	<0.10	0.110-ND
Manganese, mg/L	0.05	0.005	<0.030	0.022-ND
Odor-Threshold Units	3	1	ND	NA
Specific Conductance umhos/cm	1600	1	310	660-100
Sulfate, mg/L	500	0.5	12	29-1
Surfactants (LAS, MBAS) mg/L	0.5	0.01	<0.01	0.095-ND
Total Dissolved Solids (TDS) mg/L	1000	1	217	440-100
Turbidity, NTU Units	5	0.1	<0.1	0.27-ND
Zinc, mg/L	5.0	0.05	<0.050	0.018-ND

Lead & Copper Rule Customer Tap Monitoring 1992 Data (mg/L)	Maximum Contaminant Level (MCL)	Minimum Detection Level	Average 90th percentile	Range of Individual Results
Lead, 90th percentile	0.015	0.001	0.0015	0.006-ND
Copper, 90th percentile	1.3	0.02	0.26	1.3-ND

Radioactivity, pico Curies per Liter 1996 - 1997 Data	Maximum Contaminant Level (MCL)	Minimum Detection Level	Average of All Wells	Range High - Low
Gross Alpha, pCi/L	15	NA	2.64	7.45-0.22

Asbestos million fibers per Liter 1995 Data	Maximum Contaminant Level (MCL)	Minimum Detection Level	Result of System Analysis
Asbestos, mfl/L	7	0.2	<0.0056

* Aesthetic problems are only associated with taste, smell, and other problems which are not a health risk.

For any questions concerning these analytical results, contact:
Assistant Water/Wastewater Superintendent Frank Beeler at (209) 333-6740.

Experience a water quality problem?

- Many times water quality problems in the home can be traced to the hot water heater, the plastic water lines under the sink to faucets, or because sewer gases from the drain are being smelled.
- Set the hot water heater at the proper temperature, too hot can create heavier scaling problems, and not warm enough can allow bacteria to grow. Also remember, if you have a home treatment system, change the filter regularly.
- Other times there can be occasional water quality problems associated with the aesthetic quality of your water or sand, which may be originating from water supply mains.
- If you ever experience trouble with the quality of your water, and you do not think it is a problem with your on site plumbing, please call the Water/Wastewater Division at 368-5735, or 333-6740.



Lodi's Water Conservation Ordinance Remains in Effect in 1998

The drinking water supply for the City of Lodi is 100% groundwater. Lodi has renewed its commitment to water conservation to help preserve this valuable natural resource for our future citizens. The Water Conservation Coordinator position has been made full-time, rededicating Lodi's focus on in-school education, public information, and compliance activities.

The water table under Lodi declined noticeably in our recent past. During the six-year drought period, 1987 through 1992, the water table lost 12 feet under Lodi according to City well readings! Since the 1991-92 rain season, we have had five wet winters and only one below normal. We have seen our groundwater regain only 5 feet. In the long run, we are clearly still using more than nature is replenishing. It is nearly impossible to determine how much water conservation efforts have helped, but the more we conserve, the longer we can rely on this quality drinking water source and avoid expensive surface water treatment. *Some of Lodi's efforts to plan for the future are summarized on page 1.*

Peak Water Demands in Lodi

In the summers of 1995 and 1996 the City faced possible shortages of well capacity. Thanks in a big part to your water conservation efforts, there was never a need to turn on emergency standby wells. The new 1 million gallon water storage tank and pumping station came on line last summer with the peak pumping capacity of three wells. This does not mean that an unusually high water demand and/or a break down of well equipment would not cause water demand problems in the future. It is still prudent at this time for everyone to conserve water and help shave peak water demands, this should become a normal part of our lifestyle.

Peak water demands for the City of Lodi water system occur twice daily, **between 6 & 9 a.m. and again between 7 & 10 p.m.**, during the months of June, July, August, and September.

How Can You Help?

Some water uses during peak hours can be shifted to non-peak hours, such as:

- Automatic timers for lawn/landscaping watering could be set to end before 6 a.m., or start after 10 p.m.
- Perhaps the laundry could be put off until after 9 a.m. or done before 7 p.m.
- Could water uses such as showering, car washing, dishwashing, etc., be changed to non-peak hours?
- Some commercial/industrial water uses could be changed to non-peak hours.

There are probably other good ideas you can come up with and we'd like to hear them, call us at the number below. As a bonus, simple changes in water use patterns can save everyone \$\$\$.

It costs up to one-half million dollars (\$500,000) to site, drill, develop, equip, and connect a new well to the drinking water system. If we can keep down our peak water demands in Lodi, costs of some future wells can be avoided.

Please see the summary of water conservation regulations below. If you have any questions on water conservation, our education program, or for further information on reducing peak demands, please call the Water Conservation Coordinator Orson Laam at (209) 333-6829.

Thank you for past and continued cooperation.

City of Lodi - Water Conservation Ordinance Summary

Ordinance Requirements - Water waste includes but is not limited to the following:

1. Allowing a controllable leak of water to go unrepaired.
2. Watering lawns, flower beds, landscaping, ornamental plants or gardens except on **watering days** as follows:
Odd-numbered addresses on Wednesday, Friday and Sunday;
Even-numbered addresses on Tuesday, Thursday, and Saturday.
(WATERING IS NOT ALLOWED ON MONDAYS)
3. Watering **between 10 a.m. and 6 p.m.** from May 1 through September 30 each year. (You may NOT water during these high evaporation times.)
4. Washing down sidewalks, driveways, parking areas, tennis courts, patios, other paved areas or buildings.
5. Washing any motor vehicle, trailer, boat, moveable equipment except with a bucket. A hose (see # 6 below) shall be used for rinsing only and for not more than three (3) minutes.
6. Use of a hose without a positive shut off nozzle. **(NO OPEN HOSES)**
7. Allowing excess water to flow into a gutter or any drainage area for longer than three (3) minutes.
8. Overwatering lawns or landscapes from November 1 through February 28, or during and immediately after a rain.

Water Wasting Rates and Enforcement - Education and cooperation is our first goal, but the following enforcement procedures and charges will be followed for water waste.

-1st Water Waste - City will leave an information sheet describing the waste so that it may be corrected.

-2nd Water Waste* - City will give written notice requiring corrective action.
* Within 12 months of a 1st Water Waste

-3rd Water Waste* - City will give written notice, and a \$35 charge will be added to the next utility bill. * Within 12 months of a 2nd Water Waste

-4th Water Waste* - City will give written notice, and a \$75 charge will be added to the next utility bill. * Within 12 months of a 3rd Water Waste

-5th and Subsequent Water Wastes* - City will give written notice, and a \$150 charge will be added to the next utility bill AND the City may require a water meter and/or flow restrictor to be installed at the waster's expense.
* Within 12 months of the previous Water Waste.

If you have any questions, would like further information concerning water conservation, or to report water waste, please call the Water Conservation Office at 333-6829.



CITY OF LODI

Carnegie Forum
305 West Pine Street, Lodi

NOTICE OF PUBLIC HEARING

Date: August 19, 1998

Time: 7:00 p.m.

For information regarding this notice please contact:

Alice M. Reimche

City Clerk

Telephone: (209) 333-6702

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that on Wednesday, August 19, 1998 at the hour of 7:00 p.m., or as soon thereafter as the matter may be heard, the City Council will conduct a Public Hearing at the Carnegie Forum, 305 West Pine Street, Lodi, to consider the following matter:

- a) receive comments on and accept the required Public Health Goals Report.

All interested persons are invited to present their views and comments on this matter. Written statements may be filed with the City Clerk at any time prior to the hearing scheduled herein, and oral statements may be made at said hearing.

If you challenge the subject matter in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing described in this notice or in written correspondence delivered to the City Clerk, P.O. Box 3006, at or prior to the Public Hearing.

Alice M. Reimche
City Clerk

Dated: July 15, 1998

Approved as to form:

Randall A. Hays
City Attorney